Editorial Board

CARDIOVASCULAR MEDICINE

ADULTS

Jonathan Abrams
Robert J. Adolph
Joseph S. Alpert
Jeffrey Anderson
William F. Armstrong
Thomas M. Bashore
George A. Beller
Robert O. Bonow
Eugene Braunwald
B. Greg Brown
Alfred E. Buxton
Michael E. Cain
Richard O. Cannon, III
Agustin Castellanos
John S. Child
Peter F. Cohn
C. Richard Conti
Michael H. Crawford
Robert F. DeBusk
Pablo Denes
Richard B. Devereux
John P. DiMarco
Pamela S. Douglas
George A. Diamond
Myrvin H. Ellestad
Stephen E. Epstein
Harvey Feigenbaum
Robert L. Feldman
Frank A. Finnerty, Jr.
Brian G. Firth
John T. Flaherty
Gerald Fletcher
Joseph A. Franciosa
Edward D. Freis
William H. Frishman
Valentin Fuster
William H. Gaasch
William Ganz
Julius M. Gardin
Bernard Gersh
D. Luke Glancy
Antonio M. Gotto, Jr.
Donald C. Harrison
W. Proctor Harvey
Richard H. Helfant
Philip D. Henry
Frederick A. Heupler, Jr.
Jay Hollman
L. David Hillis
Leonard N. Horowitz
J. Willis Hurst
Abdulmassih S. Iskandrian
Jeffrey M. Isner
Mark E. Josephson
Norman M. Kaplan
Joel S. Karliner
John A. Kastor
Harold L. Kennedy
Kenneth M. Kent
Spencer B. King, III
Robert A. Kloner
Carl V. Leier
Herbert J. Levine
Joseph Lindsay, Jr.
G.B. John Mancini
Frank I. Marcus
Dean T. Mason
Jawahar Mehta
Michael Mock
Fred Morady
Joel Morganroth
Robert J. Myerburg
Navin C. Nanda
Robert A. O'Rourke
Randolph Patterson
Alan S. Pearlman
Carl J. Pepine
Joseph K. Perloff
Bertram Pitt
Philip J. Podrid
Richard L. Popp
Charles E. Rackley
Shahbudin H. Rahimtoola
Nathaniel Reichek
Peter Rentrop
Robert Roberts
Allan M. Ross
John Ross, Jr.
Nelson B. Schiller
Melvin M. Scheinman
Ralph Shabetai
Pravin M. Shah
Florence H. Sheehan
Richard S. Shulman
Donald H. Singer
John C. Somberg
David H. Spodick
Donald V. Unverferth
Andrew G. Wallace
Richard A. Walsh
James T. Willerson
John R. Wilson
Barry L. Zaret

INFANTS AND CHILDREN

Lionel M. Bargeron
D. Woodrow Benson, Jr.
William F. Friedman
Arthur Garson, Jr.
Howard P. Gutgesell
James E. Lock
Barry J. Maron
L.H.S. Van Mierop
Lowell W. Perry
Amnon Rosenthal
David J. Sahn
Stephen Sanders
Norman H. Silverman
Roberta G. Williams
Grace S. Wolff
J.R. Zuberbuhler

CARDIOVASCULAR SURGERY

Harvey W. Bender, Jr.
Lawrence I. Bonchek
Aldo R. Castaneda
Lawrence H. Cohn
Charles R. Hatcher, Jr.
Robert H. Jones
Robert B. Karp
Floyd D. Loop
H. Newland Oldham, Jr.
Albert D. Pacifico
Bruce A. Reitz
Robert B. Wallace
Andrew S. Wechsler

RELATED SPECIALISTS

L. Maximilian Buja
Kenneth E. Fellows
Victor J. Ferrans
Michael C. Fishbein
H. William Strauss
Richard Van Praagh

**VOLUME 59:
JANUARY 1, 1987
THROUGH
JUNE 1, 1987***

THE AMERICAN JOURNAL OF CARDIOLOGY

EDITOR-IN-CHIEF
William C. Roberts, MD

ASSOCIATE EDITORS
William P. Baker, MD, PhD
Paul A. Tibbits, MD

MANAGING EDITOR
Margaret Ann Inman

ASSISTANT MANAGING EDITOR
Judith W[illegible]gner

ASSISTANT TO THE EDITOR
Jennifer L. Granger

SYMPOSIUM STAFF
Margaret E. Phelan
Mary Crowell

PUBLISHER
Paul J. Carnese

* Symposia from June 1987 will appear in the December 1987 issue.

Volume 59/Copyright © 1987
The Cahners Publishing Company, a Division of Reed Publishing USA,
249 West 17th Street, New York, New York 10011

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage retrieval system, without written permission of the copyright owner.

Printed in the United States of America

CONTENTS INDEX: JANUARY 1, 1987 THROUGH JUNE 1, 1987

JANUARY 1, 1987
VOLUME 59 • NUMBER 1

CORONARY ARTERY DISEASE

1
Mortality and Morbidity Rates of Patients Older and Younger Than 75 Years with Acute Myocardial Infarction Treated with Intravenous Streptokinase.
Allan S. Lew, Hanoch Hod, Bojan Cercek, Prediman K. Shah, and William Ganz

6
Value of the Admission Electrocardiogram in Predicting Outcome of Thrombolytic Therapy in Acute Myocardial Infarction. A Randomized Trial Conducted by The Netherlands Interuniversity Cardiology Institute.
Frits W. Bar, Frank Vermeer, Chris De Zwaan, Mercedes Ramentol, Simon Braat, Maarten L. Simoons, Wim T. Hermens, Arnoud Van Der Laarse, Freek W.A. Verheugt, X. Hanno Krauss, and Hein J.J. Wellens

14
Risk Factors for Coronary Artery Disease in Families of Young Men with Myocardial Infarction.
Anders Hamsten and Ulf de Faire

20
Identification of the Optimal Electrocardiographic Leads for Detecting Acute Epicardial Injury in Acute Myocardial Infarction.
Harry R. Aldrich, Nancy B. Hindman, Tomoaki Hinohara, Michael G. Jones, Jane Boswick, Kerry L. Lee, Wanda Bride, Robert M. Califf, and Galen S. Wagner

24
Assessment of Left Ventricular Wall Thickness in Healed Myocardial Infarction by Magnetic Resonance Imaging.
E. William Akins, James A. Hill, Klaus W. Sievers, and C. Richard Conti

29
Impaired Left Ventricular Filling Dynamics During Percutaneous Transluminal Angioplasty for Coronary Artery Disease.
Federico Piscione, Paul G. Hugenholtz, and Patrick W. Serruys

38
Videodensitometric Determination of Minimum Coronary Artery Diameter Before and After Angioplasty.
Jonathan Tobis, Orhan Nalcioglu, Warren D. Johnston, Lian Qu, Tim Reese, David Sato, Werner Roeck, Steve Montelli, and Walter L. Henry

45
Silent Myocardial Ischemia During Daily Activities in Asymptomatic Men with Positive Exercise Test Responses.
Kevin M. Coy, Greg A. Imperi, Charles R. Lambert, and Carl J. Pepine

50
Exercise Thallium Scans: Patterns of Use and Impact on Management of Patients with Known or Suspected Coronary Artery Disease.
Earl P. Steinberg, Michael J. Klag, Curt W. Bakal, H. William Strauss, Charles A. Boucher, and Timothy E. Guiney

57
Usefulness of Q-Wave Response to Exercise as a Predictor of Coronary Artery Disease.
Tomoyuki Furuse, Hiroto Mashiba, John W. Jordan, Jacqueline O'Donnell, Stephen N. Morris, and Paul L. McHenry

61
Frequency of Painless Myocardial Ischemia During Exercise Tolerance Testing in Patients With and Without Diabetes Mellitus.
Stuart R. Chipkin, David Frid, Joseph S. Alpert, Stephen P. Baker, James E. Dalen, and Neil Aronin

66
Dynamic Variations in Resistance of Coronary Arterial Narrowings in Angina Pectoris at Rest.
Peter Ganz, Richard P. Abben, and William H. Barry

71
Different Degrees of Ischemic Threshold Stratified by Dipyridamole-Echocardiography Test.
Eugenio Picano, Fabio Lattanzi, Michele Masini, Alessandro Distante, and Antonio L'Abbate

74
Cardiovascular Time Course After Digoxin Administration in Left Ventricular Dysfunction After Coronary Artery Bypass Grafting.
L. Scott Cook, Robert G. Johnson, and Ronald C. Elkins

ARRHYTHMIAS AND CONDUCTION DISTURBANCES

78
Intraoperative Mapping-Guided Argon Laser Ablation of Malignant Ventricular Tachycardia.
Sanjeev Saksena, S. Mansoor Hussain, Isaac Gielchinsky, Arun Gadhoke, and Demetris Pantopoulos

84
Frequency of Hypokalemia After Successfully Resuscitated Out-of-Hospital Cardiac Arrest Compared with That in Transmural Acute Myocardial Infarction.
David M. Salerno, Richard W. Asinger, Joseph Elsperger, Ernest Ruiz, and Morrison Hodges

89
Electrophysiologic Effects and Long-Term Efficacy of Bepridil for Recurrent Supraventricular Tachycardias.
Denis Roy, Martine Montigny, George J. Klein, Arjun D. Sharma, and Dennis Cassidy

93
Chronotropic Effect Of Hydralazine and its Mechanism in Symptomatic Sinus Bradycardia.
Basil S. Lewis, Yosef Rozenman, Amnon Merdler, Morris E. Rodeanu, Arie Shefer, and David A. Halon

97
Application of a Frequency Definition of Ventricular Proarrhythmia.
Joel Morganroth, Michael Borland, and George Chao

CONGESTIVE HEART FAILURE

100
Static Exercise with Congestive Heart Failure and the Response to Vasodilating Drugs.
David R. Broudy, Barry H. Greenberg, Deirdre Siemienczuk, Steven Reinhart, Cynthia Morris, and Henry DeMots

VALVULAR HEART DISEASE

105
Risk of Infective Endocarditis in Mitral Valve Prolapse With and Without Systolic Murmurs.
Stephen W. MacMahon, Andrew J. Hickey, David E.L. Wilcken, Janet T. Wittes, Michael P. Feneley, and John B. Hickie

109
The Equilibrium Position of the Mitral Valve: An Accurate Model of Mitral Valve Motion in Humans.
Philip F. Binkley, John D. Bonagura, Shari M. Olson, Harisios Boudoulas, and Charles F. Wooley

CONGENITAL HEART DISEASE

114
Cross-Sectional Echocardiographic Study of Criss-Cross Hearts and Superoinferior Ventricles.
Mario Carminati, Orazio Valsecchi, Adele Borghi, Abele Balduzzi, Arturo Bande, Giancarlo Crupi, Paolo Ferrazzi, and Giorgio Invernizzi

METHODS

119
Comparison of the Classification Ability of the Electrocardiogram and Vectorcardiogram.
Jos L. Willems, Emmanuel Lesaffre, and Jos Pardaens

125
Effects of Positional Changes on Inferior Vena Caval Size and Dynamics and Correlations with Right-Sided Cardiac Pressure.
Shoichiro Nakao, Patricia C. Come, Raymond G. McKay, and Bernard J. Ransil

133
Limits of Reproducibility of Blood Flow Measurements by Doppler Echocardiography.
Erik J. Meijboom, Hans Rijsterborgh, Hans Bot, Job A.J. De Boo, Jos R.T.C. Roelandt, and Nicolaas Bom

138
Effect of Left Ventricular Size on Early Diastolic Left Ventricular Filling in Neonates and in Adults.
Katsu Takenaka, Ali Dabestani, Feizal Waffarn, Julius M. Gardin, and Walter L. Henry

142
Left Ventricular Derived Cardiac Output.
William J. French, Richard J. Haskell, Robert W. Knouse, and John Michael Criley

145
Assessment of Regional Left Ventricular Wall Thickening by Magnetic Resonance Imaging: Evaluation in Normal Persons and Patients with Global and Regional Dysfunction.
Udo Sechtem, Barbara A. Sommerhoff, Walter Markiewicz, Richard D. White, Melvin D. Cheitlin, and Charles B. Higgins

152
Safety of Intravenous Dipyridamole for Stress Testing with Thallium Imaging.
Shunichi Homma, Yvonne Gilliland, Timothy E. Guiney, H. William Strauss, and Charles A. Boucher

EDITORIALS

155
Eicosapentaenoic Acid: Its Relevance in Atherosclerosis and Coronary Artery Diease.
Jawahar Mehta, Larry M. Lopez, and Thomas Wargovich

BRIEF REPORTS

161
Acute Myocardial Infarction Shortly After Cocaine Inhalation.
Joe L. Rod and Robert P. Zucker

162
Diagnosis of Rupture of the Ventricular Septum During Acute Myocardial Infarction by Doppler Color Flow Mapping.
Zachariah P. Zachariah, Ming C. Hsiung, Navin C. Nanda, and Gustavo P. Camarano

163
Percutaneous Transluminal Angioplasty of a Brachial Artery Occlusion after Cardiac Catheterization.
Gerald Dorros and Ruben F. Lewin

164
A Modified Ajmaline Test for Prediction of the Effective Refractory Period of the Accessory Pathway in the Wolff-Parkinson-White Syndrome.
Marcello Chimienti, Maurizio Moizi, Catherine Klersy, Luigina Guasti, and Jorge A. Salerno

166
Amiodarone and Digoxin for Refractory Fetal Tachycardia.
Philippe Arnoux, Philippe Seyral, Michele Llurens, Pierre Djiane, Alain Potier, Daniel Unal, Jean Paul Cano, Andre Serradimigni, and Francis Rouault

168
Effect of Erythromycin on Ventricular Arrhythmias and Ventricular Repolarization in Idiopathic Long QT Syndrome.
Roger A. Freedman, Kelley P. Anderson, Larry S. Green, and Jay W. Mason

170
Dynamic Intracoronary Echoes in Kawasaki's Disease.
Robert M. Gow, Jeffrey F. Smallhorn, and Richard D. Rowe

171
Atrioventricular Pacemaker Placement in Romano-Ward Syndrome and Recurrent Torsades de Pointes.
Charles I. Wilmer, Bernardo Stein, and Douglas C. Morris

172
Blood Hematocrit Changes During Paroxysmal Atrial Fibrillation.
Kouji Imataka, Hideaki Nakaoka, Younosuke Kitahara, Jun Fujii, Miyuki Ishibashi, and Tohru Yamaji

173
A Low-Noise P-Wave Discriminating Electrocardiogram in the Diagnosis of Complex Cardiac Arrhythmias.
Nabil El-Sherif, Rahul Mehra, Mark Restivo, and George Kelen

176
Use of the Cryoprobe to Facilitate Intraoperative Electrophysiologic Mapping by Inhibiting Sinus Node Function in Automatic Atrial Tachycardia.
Douglas L. Wood, Stephen C. Hammill, and Gordon K. Danielson

177
Clinical and Echocardiograhic Correlates of Systemic Embolization in Nonrheumatic Atrial Fibrillation.
Isaac Wiener, *With the technical assistance of* Ruthanne Hafner, Madonna Nicolai, *and* Holly Lyons

178
Mechanism of Percutaneous Mitral Valvotomy.
Peter C. Block, Igor F. Palacios, Marshall L. Jacobs, and John T. Fallon

179
Extensive Calcification of a Bioprosthesis in the Tricuspid Valve Position and Minimal Calcification of a Simultaneously Implanted Bioprosthesis in the Mitral Valve Position.
Deborah J. Barbour, Charles L. McIntosh, and William C. Roberts

181
Correlation of Murmurs of Mitral Stenosis and Mitral Regurgitation with Presence or Absence of Mitral Anular Calcium in Persons Older Than 62 Years in a Long-Term Health Care Facility.
Wilbert S. Aronow, Kenneth S. Schwartz, and Mordecai Koenigsberg

182
Mitral Valve Myxoma Diagnosed by Two-Dimensional Echocardiography.
S. Serge Barold, George L. Hicks, Navin C. Nanda, Ling S. Ong, Michael D. Falkoff, and Robert A. Heinle

183
Prevalence of Hypertrophic Cardiomyopathy in a Population of Adult Japanese Workers as Detected by Echocardiographic Screening.
Yoshiyuki Hada, Tsuguya Sakamoto, Keiko Amano, Tsuneo Yamaguchi, Katsu Takenaka, Hisako Takahashi, Reiko Takikawa, Ichiro Hasegawa, Toshiyuki Takahashi, Jun-Ichi Suzuki, Tsuneaki Sugimoto, and Kin-Ichi Saito

185
Cyclic Nucleotide Analysis of Myocardial Biopsies in Hypertrophic Cardiomyopathy.
Donald V. Unverferth, William R. Schmidt, III, and Richard H. Fertel

186
Isolated, Non-Narrowed, Single Coronary Artery with Angina Pectoris.
Donald R. Lilly, George A. Beller, Arie M. Rijke, and Denny D. Watson

188
Percutaneous Angioplasty for Peripheral Pulmonary Stenosis in an Adult.
David E. Hoekenga, Gerald F. Stevens, and William S. Ball

189
Inspiratory Augmentation of the Intensity of the Diastolic Murmur in Right Coronary Left Ventricular Fistula.
B.L. Chia, Charles C. Toh, Joseph H. Sheares, and Maurice H. Choo

191
Mitral Valve Prolapse, Cardiac Hemodynamics and Coronary Circulation Patterns in Men with Angina Pectoris and Angiographically Normal Coronary Arteries.
James H. McCroskery, Robert A. Warner, Norma E. Hill, Robert P. Sprafkin, and Larry J. Lantinga

192
Aneurysm of the Pulmonary Trunk Unassociated with Intracardiac or Great Vessel Left-to-Right Shunting.
Deborah J. Barbour and William C. Roberts

195
Right-Sided Cardiac Thrombi and Pulmonary Embolism.
Simon Chakko and Ferdinand Richards, III

197
The AJC 25 Years Ago—January 1962.
William C. Roberts

198
FROM THE EDITOR

CME Test on page 56

INSTRUCTIONS TO AUTHORS on page 160

JANUARY 23, 1987
VOLUME 59 • NUMBER 2

A SYMPOSIUM: THE CALCIUM ION, CARDIAC MYOCYTE AND VASCULAR SMOOTH MUSCLE IN HYPERTENSION AND ITS TREATMENT

JANUARY 30, 1987
VOLUME 59 • NUMBER 3

A SYMPOSIUM: CALCIUM ANTAGONISTS EMERGING CLINICAL OPPORTUNITITES

FEBRUARY 1, 1987
VOLUME 59 • NUMBER 4

CORONARY ARTERY DISEASE

203
Cigarette Smoking-Induced Coronary Vasoconstriction in Atherosclerotic Coronary Artery Disease and Prevention by Calcium Antagonists and Nitroglycerin.
Michael D. Winniford, Donald E. Jansen, Gary A. Reynolds, Phillip Apprill, William H. Black, and L. David Hillis

208
Predictive Importance of Clinical Findings and a Predischarge Exercise Test in Patients with Suspected Unstable Coronary Artery Disease.
Eva Swahn, Magnus Areskog, Ulf Berglund, Håkan Walfridsson, and Lars Wallentin

215
Efficacy of Sustained-Release Verapamil in Chronic Stable Angina Pectoris.
Donald A. Weiner, Michael D. Klein, and Sally S. Cutler

219
Metabolic and Hemodynamic Effects of Nicardipine During Pacing-Induced Angina Pectoris.
Anne Thomassen, Jens P. Bagger, Torsten T. Nielsen, and Per Henningsen

225
Limitations of Dipyridamole-Echocardiography in Effort Angina Pectoris.
Alberto Margonato, Sergio Chierchia, Domenico Cianflone, Gillian Smith, Filippo Crea, Graham J. Davies, Attilio Maseri, and Rodney A. Foale

231
Effects of Prolonged Intensive Versus Moderate Leg Training on the Untrained Arm Exercise Response in Angina Pectoris.
Efraim Ben-Ari, Jan J. Kellermann, Donald A. Rothbaum, Enrique Fishman, and Amos Pines

235
Spontaneous Remission of Variant Angina Documented by Holter Monitoring and Ergonovine Testing in Patients Treated with Calcium Antagonists.
Mario Previtali, Claudio Panciroli, Diego Ardissino, Marcello Chimienti, Luigi Angoli, and Jorge A. Salerno

241
Role of Heparin After Intravenous Thrombolytic Therapy for Acute Myocardial Infarction.
Kerry Kaplan, Richard Davison, Michele Parker, Brenda Mayberry, Paulette Feiereisel, and Michael Salinger

245
Significance of Elevated MB Isoenzyme with Normal Creatine Kinase in Acute Myocardial Infarction.
Salim Yusuf, Rory Collins, Lynette Lin, Heather Sterry, Marian Pearson, and Peter Sleight

251
Outcome After Cardiac Arrest During Acute Myocardial Infarction.
Robert J. Goldberg, Joel M. Gore, Charles I. Haffajee, Joseph S. Albert, and James E. Dalen

256
Decreased Heart Rate Variability and its Association with Increased Mortality After Acute Myocardial Infarction.
Robert E. Kleiger, J. Phillip Miller, J. Thomas Bigger, Jr., Arthur J. Moss, and the Multicenter Post-Infarction Research Group

263
Usefulness of Percutaneous Transluminal Coronary Angioplasty for Unstable Angina Pectoris After Non-Q-Wave Acute Myocardial Infarction.
Robert D. Safian, Louis D. Snyder, Barbara A. Snyder, Raymond G. McKay, Beverly H. Lorell, Julian M. Aroesty, Richard C. Pasternak, Arlene B. Bradley, E. Scott Monrad, and Donald S. Baim

267
Frequency, Management and Follow-up of Patients with Acute Coronary Occlusion After Percutaneous Transluminal Coronary Angioplasty.
Conrad Simpfendorfer, Jorge Belardi, Gregory Bellamy, Kathy Galan, Irving Franco, and Jay Hollman

270
Incremental Prognostic Power of the Clinical History, Exercise Electrocardiography and Myocardial Perfusion Scintigraphy in Suspected Coronary Artery Disease.
Marc L. Ladenheim, Todd S. Kotler, Brad H. Pollock, Daniel S. Berman, and George A. Diamond

ARRHYTHMIAS & CONDUCTION DISTURBANCES

278
Spontaneous Variability of Ventricular Arrhythmias in Patients at Increased Risk for Sudden Death after Acute Myocardial Infarction: Consecutive Ambulatory Electrocardiographic Recordings of 88 Patients.
Craig M. Pratt, Pierre Théroux, Don Slymen, Ann Riordan-Bennett, Doris Morisette, Amy Galloway, A. Allen Seals, and Alfred Hallstrom

284
Decline in Inducibility of Sustained Ventricular Tachycardia from Two to Twenty Weeks After Acute Myocardial Infarction.
Anil K. Bhandari, Phillip K. Au, Jeffrey S. Rose, Adam Kotlewski, Sharon Blue, and Shahbudin H. Rahimtoola

291
Electrophysiologic Assessment of Antiarrhythmic Drug Efficacy for Ventricular Tachyarrhythmias Associated with Dilated Cardiomyopathy.
Alan P. Rae, Scott R. Spielman, Steven P. Kutalek, Harold R. Kay, and Leonard N. Horowitz

296
Value of the 12-Lead Electrocardiogram in Discriminating Atrioventricular Nodal Reciprocating Tachycardia from Circus Movement Atrioventricular Tachycardia Utilizing A Retrograde Accessory Pathway.
G. Neal Kay, Joyce C. Pressley, Douglas L. Packer, Edward L.C. Pritchett, Lawrence D. German, and Marcel R. Gilbert

301
Efficacy and Safety of Intravenous and Oral Diltiazem for Wolff-Parkinson-White Syndrome.
Mohammad Shenasa, Martin Fromer, Gérard Faugère, Réginald Nadeau, Robert A. Leblanc, Chantal Lambert, and Mohammad Ali Sadr-Ameli

307
Electrophysiologic Effects, Clinical Efficacy and Safety of Intravenous and Oral Nadolol in Refractory Supraventricular Tachyarrhythmias.
Sanjeev Saksena, George J. Klein, Peter R. Kowey, Ricardo A. Calvo, Roberto Boccadamo, James E. Brown, Arjun D. Sharma, Arun Gadhoke, and Adeoye Y. Olukotun

VALVULAR HEART DISEASE

313
Treatment of Calcific Aortic Stenosis by Balloon Valvuloplasty.
Jeffrey M. Isner, Deeb N. Salem, Mark R. Desnoyers, Thomas J. Hougen, William C. Mackey, Natesa G. Pandian, Eric J. Eichhorn, Marvin A. Konstam, and Herbert J. Levine

318
In Vitro Analysis of Mechanisms of Balloon Valvuloplasty of Stenotic Mitral Valves.
Jeffrey D. Kaplan, Jeffrey M. Isner, Richard H. Karas, Kimberly R. Halaburka, Marvin A. Konstam, Thomas J. Hougen, Richard J. Cleveland, and Deeb N. Salem

324
Echocardiographic Observations of Calcium in Operatively Excised Stenotic Aortic Valves.
Maylene Wong, Chuwa Tei, Nancy Sadler, John H. Wittig, Davis Drinkwater, and Pravin M. Shah

330
Determination of Aortic Valve Orifice Area in Aortic Valve Stenosis By Two-Dimensional Transesophageal Echocardiography.
Thomas Hofmann, Wolfgang Kasper, Thomas Meinertz, Gerhard Spillner, Volker Schlosser, and Hanjoerg Just

336
Detection of Coronary Artery Disease by Thallium Images Using a Combined Intravenous Dipyridamole and Isometric Handgrip Test in Patients with Aortic Valve Stenosis.
Heikki V. Huikuri, Ulla R. Korhonen, Markku J. Ikäheimo, Juhani Heikkilä, and Juha T. Takkunen

341
Doppler Echocardiographic Evaluation of Ring Mitral Valvuloplasty for Pure Mitral Regurgitation.
John Kenny, Lawrence Cohn, Richard Shemin, John J. Collins, Maureen Plappert, and Martin G. St. John Sutton

346
Isolated Replacement of a Prosthesis or a Bioprosthesis in the Mitral Valve Position.
Manuel J. Antunes and Manuel P. Magalhães

350
Isolated Replacement of a Prosthesis or a Bioprosthesis in the Aortic Valve Position.
Manuel J. Antunes

HISTORICAL STUDIES

353
From Irritable Heart to Mitral Valve Prolapse—World War I, the British Experience and Clifford Allbutt.
Charles F. Wooley

BRIEF REPORTS

358
Frequency of Severe (70% or More) Narrowing of the Right, Left Anterior Descending, and Left Circumflex Coronary Arteries in Right Dominant Circulations with Coronary Artery Disease.
L. David Hillis and Michael D. Winniford

359
Failure of Intraaortic Balloon Counterpulsation to Augment Distal Coronary Perfusion Pressure During Percutaneous Transluminal Coronary Angioplasty.
Robert G. MacDonald, James A. Hill, and Robert L. Feldman

362
Transesophageal Echocardiography for Diagnosis of Rupture of the Ventricular Septum or Left Ventricular Papillary Muscle During Acute Myocardial Infarction.
Kristi Koenig, Wolfgang Kasper, Thomas Hofmann, Thomas Meinertz, and Hanjörg Just

363
Relation Between Use of Anti-Inflammatory Agents and left Ventricular Free Wall Rupture During Acute Myocardial Infarction.
Howard S. Silverman and Mark P. Pfeifer

364
Acute Myocardial Infarction Associated with Prolonged Sneezing.
Michael L. Therrien, Blas Moreno, Kenneth S. Korr, and Gary V. Heller

366
Clinical and Angiographic Similarities in Twins with Coronary Artery Disease.
David M. Herrington and Thomas A. Pearson

368
Prevalence of Arrhythmias Detected by Ambulatory Electrocardiographic Monitoring and of Abnormal Left Ventricular Ejection Fraction in Persons Older Than 62 Years in a Long-Term Health Care Facility.
Wilbert S. Aronow, Stanley Epstein, Kenneth S. Schwartz, and Mordecai Koenigsberg

370
Echocardiographic Detection of Perforation of the Cardiac Ventricular Septum by a Permanent Pacemaker Lead.
Flordelliza S. Villanueva, James A. Heinsimer, Marilyn H. Burkman, Lameh Fananapazir, Robert A. Halvorsen, Jr., and James T. Chen

371
An Unusual Variant of Familial Preexcitation.
Humberto J. Vidaillet, Jr., Claude S. Burton III, Norman M. Ramirez, Marcel R. Gilbert, Victor S. Behar, Donald B. Hackel, and Lawrence D. German

374
Association of Atrial Flutter with Orthodromic Reciprocating Fetal Tachycardia.
Walter H. Johnson, Jr., Ann Dunnigan, Peter Fehr, and D. Woodrow Benson, Jr.

376
QT Prolongation and Torsades de Pointes After Administration of Trimethoprim-Sulfamethoxazole.
J. Antonio Lopez, John G. Harold, Mark C. Rosenthal, Daniel S. Oseran, Jay N. Schapira, and Thomas Peter

379
Treatment of End-Stage Congestive Heart Failure by Extracorporeal Ultrafiltration.
Luigi Donato, Andrea Biagini, Carlo Contini, Antonio L'Abbate, Michelle Emdin, Marcello Piacenti, and Roberto Palla

380
Percutaneous Balloon Valvuloplasty of Mitral Stenosis Aided by Cardiac Ultrasound.
Natesa G. Pandian, Jeffrey M. Isner, Thomas J. Hougen, Mark R. Desnoyers, Kevin McInerney, and Deeb N. Salem

381
Correlation of Serum Lipids, Calcium and Phosphorus, Diabetes Mellitus, Aortic Valve Stenosis and History of Systemic Hypertension with Presence or Absence of Mitral Anular Calcium in Persons Older Than 62 Years in a Long-Term Health Care Facility.
Wilbert S. Aronow, Kenneth S. Schwartz, and Mordecai Koenigsberg

383
Polyvisceral Echinococcosis with Cardiac Involvement Imaged by Two-Dimensional Echocardiography, Computed Tomography and Nuclear Magnetic Resonance Imaging.
Michel Desnos, Eric Brochet, Pascal Cristofini, Gilbert Cosnard, Mohamed Keddari, Mohamed Mostefai, and Jean Gay

384
Comparison of Direct Fick and Thermodilution Cardiac Output Techniques at High Flow Rates.
Spencer H. Kubo, J.E.B. Burchenal, and Robert J. Cody

386
Laser Recanalization in Severe End-Stage Peripheral Vascular Disease.
Garrett Lee, Robert L. Reis, Michael D. Boggan, Ming C. Chan, Marshall H. Lee, Reginald I. Low, Hamner Hannah III, and Dean T. Mason

387
The AJC 25 Years Ago—February 1962.
William C. Roberts

388 **LETTERS**

391 **FROM THE EDITOR**

INSTRUCTIONS TO AUTHORS
on page 378

FEBRUARY 15, 1987
VOLUME 59 • NUMBER 5

SYSTEMIC HYPERTENSION

393
Diltiazem Versus Propranolol in Essential Hypertension: Responses of Rest and Exercise Blood Pressure and Effects on Exercise Capacity.
Jadwiga Szlachcic, Alan T. Hirsch, Julio F. Tubau, Carol Vollmer, Steven Henderson, and Barry M. Massie

400
Carvedilol in Systemic Hypertension.
Mary E. Heber, Geoffrey S. Brigden, Michael P. Caruana, Avijit Lahiri, and Edward B. Raftery

406
Proteinuria in Renovascular Hypertension and the Effects of Renal Angioplasty.
Marc S. Zimbler, Thomas G. Pickering, Thomas A. Sos, and John H. Laragh

409
Left Ventricular Ejection Fraction Response During Exercise in Asymptomatic Systemic Hypertension.
D. Douglas Miller, Terrence D. Ruddy, Randall M. Zusman, Robert D. Okada, H. William Strauss, David J. Kanarek, Donna Christensen, Elizabeth B. Federman, and Charles A. Boucher

414
Heterogeneity of the Atherosclerotic Process in Systemic Hypertension Poorly Controlled by Drug Treatment.
Brigitte Maarek, Alain Ch. Simon, Jaime Levenson, Isabelle Pithois-Merli, and Jean Bouthier

CARDIOMYOPATHY

418
Sensitivity and Specificity of the Echocardiographic Features of Cardiac Amyloidosis.
Rodney H. Falk, Jonathan F. Plehn, Thomas Deering, Edgar C. Schick, Jr., Paul Boinay, Alan Rubinow, Martha Skinner, and Alan S. Cohen

CONGENITAL HEART DISEASE

423
Transluminal Balloon Dilatation for Discrete Subaortic Stenosis.
Zuhdi Lababidi, Larry Weinhaus, Harry Stoeckle, Jr., and Joseph T. Walls

426
Results of the Senning Procedure in Infants with Simple and Complex Transposition of the Great Arteries.
Barbara L. George, Hillel Laks, Thomas S. Klitzner, William F. Friedman, and Roberta G. Williams

431
Obstructed Pulmonary Venous Drainage with Total Anomalous Pulmonary Venous Connection to the Coronary Sinus.
Richard A. Jonas, Aram Smolinsky, John E. Mayer, and Aldo R. Castaneda

436
Coronary Arterial Abnormalities in Pulmonary Atresia with Intact Ventricular Septum.
A. Louise Calder, Eng Eng Co, and Martin D. Sage

443
Anatomy and Pathogenesis of Aorticopulmonary Septal Defect.
Lynn M. Kutsche and Lodewyk H.S. Van Mierop

448
Frequency of Ventricular Late Potentials and Fractionated Right Ventricular Electrograms After Operative Repair of Tetralogy of Fallot.
Marc Zimmermann, Beat Friedli, Richard Adamec, and Ingrid Oberhänsli

454
Surgical and Medical Results of Complete Atrioventricular Canal: A Ten-Year Review.
Sandra K. Clapp, Burton L. Perry, Zia Q. Farooki, William L. Jackson, Peter P. Karpawich, Mehdi Hakimi, Eduardo Arciniegas, and Edward W. Green

459
Maternal Transmission of Congenital Heart Diseases: New Recurrence Risk Figures and the Questions of Cytoplasmic Inheritance and Vulnerability to Teratogens.
James J. Nora and Audrey Hart Nora

MISCELLANEOUS TOPICS

464
Intracardiac Blood Flow Velocity Waveforms in Normal Fetuses in Utero.
Toshiyuki Hata, Showa Aoki, Kohkichi Hata, and Manabu Kitao

469
Cardiac Mechanics and Function in Obese Normotensive Persons with Normal Coronary Arteries.
Blase A. Carabello and Lisa Gittens

BRIEF REPORTS

475
Spontaneous Rupture of Mitral Chordae Tendineae in Hyperthyroidism.
Raymond Joseph Aronson, Michael Hoffman, Arina Algeti-Margulis, and Israel Yust

476
Aortic Valve Perforation With Calcific Aortic Valve Stenosis and Without Infective Endocarditis or Significant Aortic Regurgitation.
William C. Roberts, Charles L. McIntosh, and Robert B. Wallace

478
Echocardiographic Features of Nonbacterial Thrombotic Endocarditis.
J. Antonio Lopez, Michael C. Fishbein, and Robert J. Siegel

480
Magnetic Resonance Imaging of Restrictive Cardiomyopathy .
Udo Sechtem, Charles B. Higgins, Barbara A. Sommerhoff, Martin J. Lipton, and Edward C. Huycke

482
Congenital Absence of the Pulmonic Valve and Tricuspid Valve Atresia with Intact Ventricular Septum.
Peter Forrest, Roberta M. Bini, James L. Wilkinson, Robert Arnold, John G.C. Wright, Roxane McKay, David I. Hamilton, Lional M. Bargeron, and Albert D. Pacifico

484
Two-Dimensional Echocardiographic Diagnosis of Cor Triatriatum.
Maria Lengyel, Attila Árvay, and Vera Bíró

485
Congenital Aortic Arch Thrombosis Diagnosed by Echocardiography.
William A. Scott, A. Rebecca Snider, MacDonald Dick II, Kathleen P. Heidelberger, Edward L. Bove, and Antonio W. Peschiera

487
Doppler Echocardiographic Assessment of Cardiac Output in Normal Children With and Without Innocent Precordial Murmurs.
Gary F. Sholler, John M. Celermajer, and Christopher M. Whight

488
Infected Acute Myocardial Infarct with Rupture in Systemic Lupus Erythematosus.
Michael J. Cunningham, Paul L. Rothenberg, Sam Schatten, Peter H. Schur, and Frederick J. Schoen

489
Two-Dimensional Echocardiographic and Magnetic Resonance Imaging Observations in Massive Lipomatous Hypertrophy of the Atrial Septum.
Patricia M. Applegate, A. Jamil Tajik, Richard L. Ehman, Paul R. Julsrud, and Fletcher A. Miller, Jr.

491
Paradoxical Response of Plasma Atrial Natriuretic Hormone to Pericardiocentesis in Cardiac Tamponade.
Patrick T. Koller, Roger J. Grekin, and John M. Nicklas

493
Cardiovascular Features of the Werner Syndrome.
Jeffrey I. Cohen, Ernest N. Arnett, A. Lewis Kolodny, and William C. Roberts

495
Evidence of Antiatherosclerotic Action of Verapamil from Direct Effects on Arterial Cells.
Alexander N. Orekhov, Vladimir V. Tertov, Khairulla A. Khashimov, Sergei S. Kudryashov, and Vladimir N. Smirnov

INSTRUCTIONS TO AUTHORS
on page 474

MARCH 1, 1987
VOLUME 59 • NUMBER 6

CORONARY ARTERY DISEASE

497
Incidence of Acute Myocardial Infarction in Patients with Exercise-Induced Silent Myocardial Ischemia.
Michael E. Assey, Gordon L. Walters, Grady H. Hendrix, Blase A. Carabello, Bruce W. Usher, and James F. Spann, Jr.

501
Analysis of Reported Randomized Trials of Streptokinase Therapy for Acute Myocardial Infarction in the 1980s.
Bharat Patel and Robert A. Kloner

505
Factors Affecting Outcome of Coronary Reperfusion with Intracoronary Streptokinase in Acute Myocardial Infarction.
Richard W. Smalling, Francisco Fuentes, Margaret Wanta Matthews, Janice Kuhn, Akira Nishikawa, William E. Walker, Phillip R. Adams, and K. Lance Gould

513
Prediction of Infarct Coronary Artery Recanalization After Intravenous Thrombolytic Therapy.
Barbara J. Kircher, Eric J. Topol, William W. O'Neill, and Bertram Pitt

516
Left Ventricular Wall Motion With and Without Q-Wave Disappearance After Acute Myocardial Infarction.
Wybren Jaarsma, Cees A. Visser, Machiel J. Van Eenige, and Jan P. Roos

519
Usefulness of Recanalization to Luminal Diameter of 0.6 Millimeter or More with Intracoronary Streptokinase During Acute Myocardial Infarction in Predicting "Normal" Perfusion Status, Continued Arterial Patency and Survival at One Year.
Rodney S. Badger, B. Greg Brown, J. Ward Kennedy, Detlef Mathey, Christian A. Gallery, Edward L. Bolson, and Harold T. Dodge

523
Endorphins Are Related to Pain Perception in Patients with Coronary Artery Disease.
David S. Sheps, Kirkwood F. Adams, Alan Hinderliter, Cynthia Price, Jill Bissette, Geraldine Orlando, Beth Margolis, and Gary Koch

528
Localization of Significant Coronary Arterial Narrowings Using Body Surface Potential Mapping During Exercise Stress Testing.
Brad R. Farr, Bernhard Vondenbusch, Jiri Silny, Guenter Rau, and Sven Effert

531
Role of Exercise Thallium-201 Myocardial Perfusion Scintigraphy in Predicting Prognosis in Suspected Coronary Artery Disease.
Jerome H. Koss, Steven M. Kobren, Andrew M. Grunwald, and Monty M. Bodenheimer

535
Percutaneous Transluminal Coronary Angioplasty For Chronic Total Coronary Arterial Occlusion .
Jean-Paul Melchior, Bernhard Meier, Philippe Urban, Leo Finci, Giuseppe Steffenino, Jacques Noble, and Wilhelm Rutishauser

539
Comparison of High-Dose Dipyridamole-Echocardiography Test and Exercise Two-Dimensional Echocardiography for Diagnosis of Coronary Artery Disease.
Eugenio Picano, Fabio Lattanzi, Michele Masini, Alessandro Distante, and Antonio L'Abbate

543
Asymmetric Distribution of Left Ventricular Asynergy in Coronary Artery Disease and Its Relation to Coronary Stenosis.
David W. Kohl, Edward W. Bough, Kenneth S. Korr, William E. Boden, and Elan J. Gandsman

547
Outcome of Coronary Artery Bypass Grafting in Black Persons.
Brian E. Simmons, Angel Castaner, Vimala Santhanam, Jalal Ghali, Norman A. Silverman, Daniel M. Goldfaden, Sidney Levitsky, Richard Cooper, and Jack Ferlinz

552
Usefulness of Radionuclide Ventriculography in Assessment of Coronary Artery Spasm.
Néstor A. Pérez Baliño, Alvaro Sosa Liprandi, Osvaldo Masoli, Susana Molteni, Teresa Rizzo, Marcelo Garrido, and Victor Sporn

ARRHYTHMIAS & CONDUCTION DISTURBANCES

559
Prospective Comparison of Right and Left Ventricular Stimulation for Induction of Sustained Ventricular Tachycardia.
Huang-Ta Lin, David E. Mann, Jerry C. Luck, Jack Krafchek, Sharon A. Magro, Valerie Sakun, and Christopher R.C. Wyndham

564
Noninvasive Electrophysiologic Study Using Standard Permanent Pacemakers in Patients with Spontaneous Sustained Ventricular Tachycardia or Ventricular Fibrillation.
Andrew I. Cohen, Ross D. Fletcher, Marc H. Wish, Frederick C. Miller, and Albert Del Negro

568
Independent Value of Signal-Averaged Electrocardiography and Left Ventricular Function in Identifying Patients with Sustained Ventricular Tachycardia in Coronary Artery Disease.
Thomas A. Buckingham, Sanjay Ghosh, Sharon M. Homan, Christopher C. Thessen, Robert M. Redd, Linda L. Stevens, Bernard. R. Chaitman, and Harold L. Kennedy

573
Usefulness of Isoproterenol Facilitation of Ventricular Tachycardia Induction During Extrastimulus Testing in Predicting Effective Chronic Therapy with Beta-Adrenergic Blockade.
Brian Olshansky and James B. Martins

578
Programmed Electrical Stimulation in Healed Myocardial Infarction Using a Standardized Ventricular Stimulation Protocol.
Manfred Zehender, Pedro Brugada, Annette Geibel, Bernd Waldecker, William Stevenson, and Hein J.J. Wellens

586
Correlation Between Signal-Averaged Electrocardiogram and Programmed Stimulation in Patients With and Without Spontaneous Ventricular Tachyarrhythmias.
A. Robert Denniss, David A. Richards, David V. Cody, Paul A. Russell, Alan A. Young, David L. Ross, and John B. Uther

591
Effect of Excision of Ventricular Myocardium on Delayed Potentials Detected by the Signal-Averaged Electrocardiogram in Patients with Ventricular Tachycardia.
A. Robert Denniss, David C. Johnson, David A. Richards, David L. Ross, and John B. Uther

596
Holter Detection of Cardiac Arrhythmias in Intracranial Subarachnoid Hemorrhage.
Giuseppe Di Pasquale, Giuseppe Pinelli, Alvaro Andreoli, Gianluca Manini, Paola Grazi, and Francesco Tognetti

601
Frequency, Diagnosis and Clinical Characteristics of Patients with Multiple Accessory Atrioventricular Pathways.
Paul G. Colavita, Douglas L. Packer, Joyce C. Pressley, Kenneth A. Ellenbogen, William G. O'Callaghan, Marcel R. Gilbert, and Lawrence D. German

607
Flecainide Acetate for Conversion of Acute Supraventricular Tachycardia to Sinus Rhythm.
Ian G. Crozier, Hamid Ikram, Matthew Kenealy, and Lester Levy

610
Simultaneous Right Atrial Appendage Sensing with a Target Tip, a Solid Tip and J Orthogonal Electrodes.
André E. Aubert, Bruce N. Goldreyer, Milford G. Wyman, Bart G. Denys, Hugo Ector, and Hilaire De Geest

SYSTEMIC HYPERTENSION

615
Comparison of Hydrochlorothiazide to Sustained-Release Diltiazem for Mild-to-Moderate Systemic Hypertension.
William H. Frishman, Edward T. Zawada Jr, L. Kent Smith, James Sowers, Stephen L. Swartz, Walter Kirkendall, John Lunn, David McCarron, Marvin Moser, and Harold Schnaper

624
Effects of Intravenous Verapamil Administration on Left Ventricular Diastolic Function in Systemic Hypertension.
Sandro Betocchi, Alberto Cuocolo, Leonardo Pace, Massimo Chiariello, Bruno Trimarco, Bruno Alfano, Bruno Ricciardelli, Marco Salvatore, and Mario Condorelli

630
Comparison of Enalapril and Bendrofluazide for Treating Systemic Hypertension.
Alexander V. Zezulka, Jaswinder S. Gill, Ian Dews, Michael D. Joy, and D. Gareth Beevers

CONGESTIVE HEART FAILURE

634
Clinical Determinants of Mortality in Chronic Congestive Heart Failure Secondary to Idiopathic Dilated or to Ischemic Cardiomyopathy.
Mariell Jessup Likoff, Sheryl L. Chandler, and Harold R. Kay

VALVULAR HEART HEART DISEASE

639
Perioperative Acute Myocardial Infarction After Valve Replacement.
Francisco Rafael Martins Laurindo, Max Grinberg, Raimunda Violante Campos de Assis, Adib Domingos Jatene, and Fulvio Pileggi

643
Hemodynamic Evaluation of Porcine Bioprostheses in the Mitral Position by Doppler Echocardiography.
Mohammed Eid Fawzy, Murtada Halim, Galal Ziady, Edward Mercer, Robert Phillips, and Wilfredo Andaya

CARDIOMYOPATHY

647
Effects of Exercise and Nitroprusside on Left Ventricular Ejection Dynamics in Idiopathic Dilated Cardiomyopathy.
William G. Kussmaul, J. Patrick Kleaveland, Jack L. Martin, John W. Hirshfeld, Jr, and Warren K. Laskey

CONGENITAL HEART DISEASE

656
Progressive Atrioventricular Valvular Regurgitation in Single Ventricle.
Jeffrey P. Moak and Welton M. Gersony

METHODS

659
Influence of Exercise on Coronary Sinus Blood Flow Determinations.
Raymond D. Magorien, Janice Frederick, Carl V. Leier, and Donald V. Unverferth

662
Evaluation of Pulmonary Artery Pressure and Resistance by Pulsed Doppler Echocardiography.
Ali Dabestani, Gregory Mahan, Julius M. Gardin, Katsu Takenaka, Cora Burn, Alice Allfie, and Walter L. Henry

669
Relation of Oxygen Uptake to Work Rate in Normal Men and Men with Circulatory Disorders.
James E. Hansen, Darryl Y. Sue, Ami Oren, and Karlman Wasserman

675
Determination of Left Ventricular Ejection Fraction by Computer Densitometric Analysis of Digital Subtraction Angiography: Experimental Validation and Correlation with Area-Length Methods.
Steven E. Nissen, Jonathan L. Elion, Paul Grayburn, David C. Booth, Thomas W. Wisenbaugh, and Anthony N. DeMaria

CARDIOVASCULAR PHARMACOLOGY

681
Pharmacodynamics of 3-Hydroxyquinidine Alone and in Combination with Quinidine in Healthy Persons.
Samuel Vozeh, Margrit Bindschedler, Huy-Riêm Ha, Gilbert Kaufmann, Theodor W. Guentert, and Ferenc Follath

685
Left Ventricular Function During Alcohol Intoxication and Autonomic Nervous Blockade.
Henning Kelbaek, Thomas Gjørup, Ole J. Hartling, Jens Marving, Niels Juel Christensen, and John Godtfredsen

EDITORIALS

689
It Is Never too Late.
Pedro Brugada

690
The Systematic Practice of Preventive Cardiology.
Thomas E. Kottke, Henry Blackburn, Milo L. Brekke, and Leif I. Solberg

695
Risk Stratification in Stable Angina Pectoris.
Robert A. Corne

698
CASSandRa.
George A. Diamond and David H. Spodick

BRIEF REPORTS

703
Identification of Risk Factors for Development of Acute Myocardial Infarction or Life-Threatening Ventricular Arrhythmia in Unstable Angina Pectoris.
John Quale, Carey Kimmelstiel, Stanley Schrem, Gregg Lipschik, and Christodoulos Stavens

705
Liver Transplantation for Treatment of Cardiovascular Disease: Comparison with Medication and Plasma Exchange in Homozygous Familial Hypercholesterolemia
Jeffrey M. Hoeg, Thomas E. Starzl, and H. Bryan Brewer, Jr.

707
Role of Hypocapnic Alkalosis in Hyperventilation-Induced Coronary Artery Spasm in Variant Angina
Diego Ardissino, Stefano De Servi, Colomba Falcone, Paolo Barberis, Pier Mario Scuri, Mario Previtali, Giuseppe Specchia, and Carlo Montemartini

709
Diagnosis of Functional Pulmonary Atresia Using Hyperventilation and Doppler Ultrasound.
G. Michael Silberbach, Bruce Ferrara, James M. Berry, Stanley Einzig, and John L. Bass

711
Doppler Echocardiographic Documentation of Diastolic Pulmonary Artery Forward Flow.
Akira Kisanuki, Chuwa Tei, Yutaka Otsuji, Kumiko Natsugoe, Yasuro Kawazoe, Shinichi Arima, and Hiromitsu Tanaka

713
Left Coronary Artery to Right Ventricular Fistula After Total Repair for Tetralogy of Fallot.
Richard E. Swensson, David J. Sahn, Lilliam M. Valdes-Cruz, Kyung J. Chung, Frederick S. Sherman, William Elias, and Pat O. Daily

714
Time Variability of Cardiac Output and Stroke Volume in Persons Without Cardiac Disease.
Cleo P. Loeber, Stanley J. Goldberg, Richard L. Donnerstein, and Margaret A. Butler

717
Identification of Dissection or Aneurysm of the Descending Thoracic Aorta by Conventional and Transesophageal Two-Dimensional Echocardiography.
Rolf Engberding, Franz Bender, Wolfgang Grosse-Heitmeyer, Eckhard Most, Ulf Steffen Müller, Hans Ulrich Bramann, and Diethold Schneider

719
Coronary-Subclavian Steal From Reversed Flow in an Internal Mammary Artery Used for Coronary Bypass.
R. James Valentine, Richard E. Fry, Kevin R. Wheelan, Daniel F. Fisher, Jr., and G. Patrick Clagett

721
FROM THE EDITOR

724
LETTERS

INSTRUCTIONS TO AUTHORS
on page 702

MARCH 9, 1987
VOLUME 59 • NUMBER 7

A SYMPOSIUM: THE CONCEPT OF THE TOTAL ISCHEMIC BURDEN

APRIL 1, 1987
VOLUME 59 • NUMBER 8

CORONARY ARTERY DISEASE

725
Significance of Silent Myocardial Ischemia During Exercise Testing in Patients with Coronary Artery Disease.
Donald A. Weiner, Thomas J. Ryan, Carolyn H. McCabe, Stephen Luk, Bernard R. Chaitman, L. Thomas Sheffield, Felix Tristani, and Lloyd D. Fisher

730
An Angiographic and Functional Comparison of Patients with Silent and Symptomatic Treadmill Ischemia Early After Myocardial Infarction.
Pamela Ouyang, Edward P. Shapiro, Nisha Chibber Chandra, Sheldon H. Gottlieb, Paul H. Chew, and Sidney O. Gottlieb

735
Plasma Beta-Endorphin Levels in Silent Myocardial Ischemia Induced by Exercise.
Gary V. Heller, Carol Ewing Garber, Mark J. Connolly, Catherine F. Allen-Rowlands, Steven F. Siconolfi, Donald S. Gann, and Richard A. Carleton

740
Demonstration of Exercise-Induced Painless Myocardial Ischemia in Survivors of Out-of-Hospital Ventricular Fibrillation.
Bimlendra Sharma, Richard Asinger, Gary S. Francis, Morrison Hodges, and Richard P. Wyeth

746
Characteristics of Silent Myocardial Ischemia During Out-of-Hospital Activities in Asymptomatic Angiographically Documented Coronary Artery Disease.
Peter F. Cohn and William E. Lawson, *With the technical assistance of* Virginia Gennaro and Dorothy Brady

750
Magnitude and Determinants of Coronary Artery Disease in Juvenile-Onset, Insulin-Dependent Diabetes Mellitus.
Andrzej S. Krolewski, Edward J. Kosinski, James H. Warram, O. Stevens Leland, Edward J. Busick, A. Cader Asmal, Lawrence I. Rand, A. Richard Christlieb, Robert F. Bradley, and C. Ronald Kahn

756
Duration of Effects and Tolerance of Slow-Release Isosorbide-5-Mononitrate for Angina Pectoris.
Udho Thadani, Stephen F. Hamilton, Edwin Olson, Jerome L. Anderson, Rajesh Prasad, Wyatt Voyles, Ralph Doyle, Edward Kirsten, and Stephen M. Teague

763
Usefulness of ST Deviation Induced by Prolonged Hyperventilation as a Predictor of Cardiac Death in Angina Pectoris.
Klaus Rasmussen, Svend Juul, Jens P. Bagger, and Per Henningsen

769
Effects of a New Vasodilating Beta-Blocking Drug, Carvedilol, on Left Ventricular Function in Stable Angina Pectoris.
Avijit Lahiri, Erwin A. Rodrigues, Imad Al-Khawaja, and Edward B. Raftery, *With the technical assistance of* David Hinge

775
Acute Hemodynamic Effects of Intravenous Nicardipine in Patients Treated Chronically with Propranolol for Coronary Artery Disease.
Paulo Rocha, Dina Zannier, Bernard Baron, Michel Pathe, Didier David, and Jean-Claude Kahn

782
Electrocardiographic Evolution of Posterior Acute Myocardial Infarction: Importance of Early Precordial ST-Segment Depression.
William E. Boden, Robert E. Kleiger, Robert S. Gibson, David J. Schwartz, Kenneth B. Schechtman, Robert J. Capone, Robert Roberts, and the Diltiazem Reinfarction Study Group

788
Recurrent Early Ischemic Events After Thrombolysis for Acute Myocardial Infarction.
David H. Schaer, Roy H. Leiboff, Richard J. Katz, Alan G. Wasserman, George B. Bren, P. Jacob Varghese, and Allan M. Ross

793
Comparison of Monoplane and Biplane Assessment of Regional Left Ventricular Wall Motion After Thrombolytic Therapy for Acute Myocardial Infarction.
David R. Holmes, Jr., Alfred A. Bove, Rick A. Nishimura, Dale G. Gehring, James H. Chesebro, Robert M. Owen, and Hugh C. Smith

798
Prognostic Effect of Bundle Branch Block Related to Coronary Artery Bypass Grafting.
Alan Chu, Robert M. Califf, David B. Pryor, Ray A. McKinnis, Frank E. Harrell, Jr., Kerry L. Lee, Steve E. Curtis, H. Newland Oldham, Jr., and Galen S. Wagner

804
Coronary Artery Bypass Surgery in Patients Aged 80 Years or Older.
Keith S. Naunheim, Morton J. Kern, Lawrence R. McBride, D. Glenn Pennington, Hendrick B. Barner, Kirk R. Kanter, Andrew C. Fiore, Vallee L. Willman, and George C. Kaiser

808
Frequency and Size of Coronary Arterial Aneurysm at Necropsy in Kawasaki Disease.
Takako Fujiwara, Hisayoshi Fujiwara, and Yoshihiro Hamashima

812
Comparison of Six Pharmacologic Regimens for Hypercholesterolemia .
Jeffrey M. Hoeg, Martha B. Maher, Kent R. Bailey, and H. Bryan Brewer, Jr.

ARRHYTHMIAS & CONDUCTION DISTURBANCES

817
Role of Invasive Electrophysiologic Testing in Patients with Symptomatic Bundle Branch Block.
Roger L. Click, Bernard J. Gersh, Declan D. Sugrue, David R. Holmes, Jr., Douglas L. Wood, Michael J. Osborn, and Stephen C. Hammill

824
Evaluation of Pacemaker Pulse Generator and Patient Longevity in Patients Aged 1 Day to 20 Years.
Gerald A. Serwer and Jane M. Mericle

828
Prevalence of Ischemia by Quantitative Thallium-201 Scintigraphy in Patients with Ventricular Tachycardia or Fibrillation Inducible by Programmed Stimulation.
T. Duncan Sellers, George A. Beller, Robert S. Gibson, Denny D. Watson, and John P. DiMarco

833
Amiodarone-Induced Thyroid Gland Dysfunction.
Sarah Mechlis, Ernesto Lubin, Josef Laor, Menachem Margaliot, and Boris Strasberg

836
Echocardiographically Determined Left Ventricular Structural and Functional Correlates of Complex or Frequent Ventricular Arrhythmias on One-Hour Ambulatory Electrocardiographic Monitoring.
Daniel Levy, Keavin M. Anderson, Jonathan Plehn, Daniel D. Savage, Jane C. Christiansen,

841
Value of Electrophysiologic Testing in Patients with Nonsustained Ventricular Tachycardia.
Antoinette M. Sulpizi, Ted D. Friehling, and Peter R. Kowey

846
A Study of Modulated Ventricular Parasystole by Programmed Stimulation.
József Tenczer, László Littmann, Miklós Rohla, Dien Bien Wu, and Tamás Fenyvesi

852
Supernormal Conduction in Accessory Atrioventricular Connections.
Mau-Song Chang, William M. Miles, and Eric N. Prystowsky

857
Distribution Patterns of Ventricular Premature Complexes at Different Heart Rates.
Göran Nilsson, Stellan Bandh, Tom Ahren, Kristina Carlson, Tommy Jonasson, and Ivar Ringqvist

862
Diseases and Drugs Causing Prolongation of the QT Interval.
Markku Laakso, Åsa Åberg, Jarkko Savola, Pertti J. Pentikäinen, and Kalevi Pyörälä

866
Cardiac Care Unit Admission Criteria for Suspected Acute Myocardial Infarction in New-Onset Atrial Fibrillation.
Harold Z. Friedman, Nancy Weber-Bornstein, Scott F. Deboe, and G.B. John Mancini

870
Cryosurgical Versus Catheter Ablation of the Atrioventricular Junction.
Anne C. Marchese, Joyce C. Pressley, Anthony L. Sintetos, Marcel R. Gilbert, and Lawrence D. German

SYSTEMIC HYPERTENSION

874
Exercise-Induced Arrhythmias in Diuretic-Treated Patients with Uncomplicated Systemic Hypertension.
George S. Bause, Jerome L. Fleg, and Edward G. Lakatta

878
Lack of Evidence of Low Ionized Calcium Levels in Systemic Hypertension
Brendan M. Buckley, Steven C. Smith, Michèle Beevers, D. Gareth Beevers, and Michael J. McKiernan

881
Role of Cardiopulmonary Mechanoreceptors in the Postural Regulation of Renin.
Ramiro A. Sanchez, Enrique J. Marco, Carlos Oliveri, Fernando J. Otero, Osvaldo Degrossi, Luis I. Moledo, and Stevo Julius

887
Comparison of Esmolol and Nitroprusside for Acute Post-Cardiac Surgical Hypertension.
Richard J. Gray, Timothy M. Bateman, Lawrence S.C. Czer, Carolyn Conklin, and Jack M. Matloff

CONGESTIVE HEART FAILURE

892
Predictability of Mitral Regurgitation Detected by Doppler Echocardiography in Patients Referred for Cardiac Transplantation.
Ruth H. Strauss, Lynne W. Stevenson, Berge A. Dadourian, and John S. Child

895
Hemodynamic Effects of Intermittent Transdermal Nitroglycerin in Chronic Congestive Heart Failure.
Norman Sharpe, Renee Coxon, Mark Webster, and Richard Luke

900
Oscillatory Hyperventilation During Exercise in Severe Congestive Heart Failure Secondary to Idiopathic Dilated Cardiomyopathy or to Ischemic Cardiomyopathy.
Cynthia B. Kremser, Michael F. O'Toole, and Alan R. Leff

906
Contribution of the Renin-Angiotensin-Aldosterone System to Development of Tolerance and Fluid Retention in Chronic Congestive Heart Failure During Prazosin Treatment.
Günter A.J. Riegger, Wilma Haeske, Christine Kraus, Eckhard P. Kromer, and Kurt Kochsiek

911
Plasma Norepinephrine Levels in Infants and Children with Congestive Heart Failure.
Robert D. Ross, Stephen R. Daniels, David C. Schwartz, David W. Hannon, Rakesh Shukla, and Samuel Kaplan

VALVULAR HEART DISEASE

915
Pressure-Flow Relations Across the Normal Mitral Valve.
Ibrahim A. Jawad, Magdi H. Ghali, Roger L. Brown, and Young H. Sohn

EDITORIALS

919
Silent Myocardial Ischemia, Arrhythmias and Sudden Death: Are They Related?
Ezra A. Amsterdam

921
THE AJC 25 YEARS AGO
William C. Roberts

922
FROM THE EDITOR

924
LETTERS

INSTRUCTIONS TO AUTHORS
on page 816

APRIL 15, 1987
VOLUME 59 • NUMBER 9

CARDIOMYOPATHY

925
Left Ventricular Systolic and Diastolic Flow Abnormalities Determined by Doppler Echocardiography in Obstructive Hypertrophic Cardiomyopathy.
Robert J. Bryg, Anthony C. Pearson, George A. Williams, and Arthur J. Labovitz

932
Regional Myocyte Hypertrophy and Increased Interstitial Myocardial Fibrosis in Hypertrophic Cardiomyopathy.
Donald V. Unverferth, Peter B. Baker, Leesa I. Pearce, Jeffrey Lautman, and William C. Roberts

937
Safety and Efficacy of Inferior Vena Caval Occlusion to Rapidly Alter Ventricular Loading Conditions in Idiopathic Dilated Cardiomyopathy.
Douglas Van Fossen, Mary E. Fontana, Donald V. Unverferth, Steve Walker, Albert J. Kolibash, and Thomas M. Bashore

CONGENITAL HEART DISEASE

943
Balloon Dilation Angioplasty of Postoperative Aortic Obstructions.
J. Philip Saul, John F. Keane, Kenneth E. Fellows, and James E. Lock

949
Intraoperative Balloon Angioplasty of Aortic Coarctation in Infants with Hypoplastic Left Heart Syndrome.
John D. Murphy, Barbara L. Sands, and William I. Norwood

952
Anatomic Characteristics of Ventricular Septal Defect Associated with Coarctation of the Aorta.
Rudolf J. Moene, Adriana C. Gittenberger-De Groot, Arentje Oppenheimer-Dekker, and Margot M. Bartelings

MISCELLANEOUS TOPICS

956
Echocardiographic Criteria for Left Ventricular Hypertrophy: The Framingham Heart Study.
Daniel Levy, Daniel D. Savage, Robert J. Garrison, Keaven M. Anderson, William B. Kannel, and William P. Castelli

961
Transient Cardiac Constriction: An Unrecognized Pattern of Evolution in Effusive Acute Idiopathic Pericarditis.
J. Sagristà-Sauleda, G. Permanyer-Miralda, J. Candell-Riera, Juan Angel, and J. Soler-Soler

967
Analysis of Causes of Velocity Spread During Initial Deceleration in the Ascending Aorta in Children and Young Adults.
Julius T. Hegesh, Stanley J. Goldberg, and Marcy L. Schwartz

971
Effect of Aging on Left Ventricular Diastolic Filling in Normal Subjects.
Robert J. Bryg, George A. Williams, and Arthur J. Labovitz

METHODS

975
Reproducibility of Cardiac Stroke Volume Estimated by Doppler Echocardiography.
Halfdan Ihlen, Knut Endresen, Yngvar Myreng, and Erik Myhre

HISTORICAL STUDIES

979
A Centennial Note on Waller and the First Human Electrocardiogram.
Howard B. Burchell

EDITORIALS

984
Recombinant Tissue Plasminogen Activator (rt-PA): Is It the Thrombolytic Agent of Choice for an Evolving Acute Myocardial Infarction?
Sol Sherry

989
Cardiac Pacing as a Subspecialty.
Victor Parsonnet

992
The Mutability of Standards as Applied to Coronary Anatomy and Flow.
David H. Spodick

993
Therapeutic Implications of Silent Myocardial Ischemia During Daily Activity.
Carl J. Pepine, Greg A. Imperi, and James A. Hill

BRIEF REPORTS

996
Radiation Exposure to Patients Undergoing Percutaneous Transluminal Coronary Angioplasty.
Philip N. Cascade, Leif E. Peterson, Waldemar J. Wajszczuk, and Joseph Mantel

998
Correlation of Serum Lipids, Calcium, and Phosphorus, Diabetes Mellitus and History of Systemic Hypertension with Presence or Absence of Calcified or Thickened Aortic Cusps or Root in Elderly Patients.
Wilbert S. Aronow, Kenneth S. Schwartz, and Mordecai Koenigsberg

999
Changes in Myoglobin, Creatine Kinase and Creatine Kinase-MB After Percutaneous Transluminal Coronary Angioplasty for Stable Angina Pectoris.
Paolo Pauletto, Diana Piccolo, Gianluigi Scannapieco, Giorgio Vescovo, Martina Zaninotto, Federico Corbara, Gianni Cuman, Raffaello Chioin, Edoardo Casiglia, Francesco Maddalena, Achille C. Pessina, and Cesare Dal Palu'

1000
Spasm of Saphenous Veins Used as Conduits for Aortocoronary Bypass Grafting.
Jessica M. Mann, Charles L. McIntosh, and William C. Roberts

1003
Prevalence of Enlarged Left Atrial Dimension by Echocardiography and Its Correlation with Atrial Fibrillation and an Abnormal P Terminal Force in Lead V_1 of the Electrocardiogram in 588 Elderly Persons.
Wilbert S. Aronow, Kenneth S. Schwartz, and Mordecai Koenigsberg

1004
Two Retrograde Atrial Responses from One Ventricular Complex in the Permanent Form of Junctional Reciprocating Tachycardia.
William M. Miles, Lawrence S. Klein, Joseph D. Minardo, and Douglas P. Zipes

1006
Early Degeneration of a Porcine Aortic Valve Bioprosthesis in the Mitral Valve Position in an Elderly Woman and Its Association with Long-Term Calcium Carbonate Therapy.
Michael G. Moront and Nevin M. Katz

1007
Percutaneous Balloon Valvulotomy for Calcific Rheumatic Mitral Stenosis.
Jose Luis M. De Ubago, Jose Antonio Vazquez De Prada, Juan Luis Bardaji, Thierry Colman, Alvaro Figueroa, Rafael Martin-Duran, and Carlos M. Gomez-Duran

1008
Dynamic Left Ventricular Outflow Tract Obstruction in Cardiac Amyloidosis Detected by Continuous-Wave Doppler Echocardiography.
Jae K. Oh, A. Jamil Tajik, William D. Edwards, John F. Bresnahan, and Robert A. Kyle

1010
Percutaneous Balloon Valvuloplasty for Valvar Aortic Stenosis in Infants and Children.
Michael Choy, Robert H. Beekman, Albert P. Rocchini, Dennis C. Crowley, A. Rebecca Snider, Macdonald Dick II, and Amnon Rosenthal

1013
Passage of Microbubbles Associated with Intravenous Infusion into the Systemic Circulation in Cyanotic Congenital Heart Disease: Documentation by Transesophageal Echocardiography.
Anthony G. Messina, Joanne Leslie, Jeffrey Gold, Marjorie J. Topkins, and Richard B. Devereux

1014
Postcoarctation Mycotic Intercostal Arterial Pseudoaneurysm.
Robert B. Wallace and Edward P. Nast

INSTRUCTIONS TO AUTHORS
on page 1016

APRIL 24, 1987
VOLUME 59 • NUMBER 10

A SYMPOSIUM: RAMIPRIL—A NEW ANGIOTENSIN CONVERTING ENZYME INHIBITOR

APRIL 30, 1987
VOLUME 59 • NUMBER 11

A SYMPOSIUM: PERSPECTIVES ON PROARRHYTHMIA

MAY 1, 1987
VOLUME 59 • NUMBER 12

CORONARY ARTERY DISEASE

1017
Ten-Year Effect of Medical and Surgical Therapy on Quality of Life: Veterans Administration Cooperative Study of Coronary Artery Surgery.
Peter Peduzzi, Herbert Hultgren, James Thomsen, and Katherine Detre

1024
Caffeine as a Possible Cause of Ventricular Arrhythmias During the Healing Phase of Acute Myocardial Infarction.
Martin G. Myers, Louise Harris, Frans H.H. Leenen, and Denis M. Grant

1029
Ambulatory Heart Rate and ST-Segment Depression During Painful and Silent Myocardial Ischemia in Chronic Stable Angina Pectoris.
G. Piero Carboni, Avijit Lahiri, Peter M.M. Cashman, and Edward B. Raftery

1035
Myocardial Protection by Intracoronary Nicardipine Administration During Percutaneous Transluminal Coronary Angioplasty.
Claude Hanet, Michel F. Rousseau, Marie-Francoise Vincent, Edith Lavenne-Pardonge, and Hubert Pouleur

1041
Pulsed Doppler Assessment of Left Ventricular Diastolic Filling in Coronary Artery Disease Before and Immediately After Coronary Angioplasty.
Barry E. Wind, A. Rebecca Snider, Andrew J. Buda, William W. O'Neill, Eric J. Topol, and Lee R. Dilworth

1047
Transesophageal Two-Dimensional Echocardiographic Evaluation of Biventricular Dimension and Function During Positive End-Expiratory Pressure Ventilation After Coronary Artery Bypass Grafting.
Jacques J. Koolen, Cees A. Visser, Eric Wever, Harry van Wezel, Nico G. Meyne, and Arend J. Dunning

1052
Need for Better Severity Indexes of Acute Myocardial Infarction Under Diagnosis-Related Groups.
Gabriel I. Barbash, Charles Safran, Bernard J. Ransil, Michael A. Pollack, and Richard C. Pasternak

1057
A New Electrocardiographic Classification For Post-Myocardial Infarction Clinical Trials.
Henry Greenberg, John Gillespie, Edward M. Dwyer, Jr., and the Multicenter Post-Infarction Research Group

1064
Risk Factors and Prognosis After Discharge for Patients Admitted Because of Suspected Acute Myocardial Infarction With and Without Confirmed Diagnosis.
Jan Kyst Madsen, Birthe Lykke Thomsen, Jan Nortved Sorensen, Karen Marie Kjeldgaard, and Bjarne Kromann-Andersen

1071
Relation of Late Potentials to Ejection Fraction and Wall Motion Abnormalities in Acute Myocardial Infarction.
J. Anthony Gomes, Steven F. Horowitz, Mark Millner, Josef Machac, Stephen L. Winters, and Phillip Barreca

1075
Tissue Plasminogen Activator Activity and Inhibition in Acute Myocardial Infarction and Angiographically Normal Coronary Arteries.
Freek W.A. Verheugt, Jan Wouter ten Cate, August Sturk, Leon Imandt, Patrick M.J. Verhorst, Machiel J. van Eenige, Willem Verwey, and Jan P. Roos

1080
Pericatheterization Risk Factors in Left Main Coronary Artery Stenosis.
Pamela R. Gordon, Cyril Abrams, Arnold K. Gash, and Blase A. Carabello

1084
Systemic and Coronary Hemodynamic Effects of Combined Alpha- and Beta-Adrenergic Blockade (Labetalol) in Normotensive Patients with Stable Angina Pectoris and Positive Exercise Stress Test Responses.
Xavier E. Prida, James A. Hill, and Robert L. Feldman

1089
Effect of Exercise on Ventricular Diastolic Time in Coronary Artery Disease.
Tetsuro Sugiura, Toshiji Iwasaka, Nobuyuki Takahashi, Masahide Matsutani, Yasuo Takayama, Mitsuo Inada, and David H. Spodick

ARRHYTHMIAS AND CONDUCTION DISTURBANCES

1093
Concordance of Distinguishing Electrocardiographic Features During Sinus Rhythm with the Location of Accessory Pathways in the Wolff-Parkinson-White Syndrome.
Bruce D. Lindsay, Karl J. Crossen, and Michael E. Cain

1103
Exercise Thallium Testing in Ventricular Preexcitation.
Stephen Archer, Charles Gornick, Frank Grund, Rex Shafer, and E. Kenneth Weir

1107
Hazards of Intravenous Verapamil for Sustained Ventricular Tachycardia.
Alfred E. Buxton, Francis E. Marchlinski, John U. Doherty, Belinda Flores, and Mark E. Josephson

SYSTEMIC HYPERTENSION

1111
Responses to Intravenous and Oral Diltiazem in Elderly and Younger Patients with Systemic Hypertension.
Janice B. Schwartz and Darrell R. Abernethy

CONGESTIVE HEART FAILURE

1118
Arterial Vasodilator, Systemic and Coronary Hemodynamic Effects of Nisoldipine in Congestive Heart Failure Secondary to Ischemic or Dilated Cardiomyopathy.
Wolfgang Kiowski, Paul Erne, Mathias Pfisterer, Jan Mueller, Fritz R. Buehler, and Felix Burkart

1126
Hemodynamic, Pharmacokinetic and Clinical Response to CI-930 in Congestive Heart Failure Due to Ischemic or Dilated Cardiomyopathy.
Syed M. Jafri, Brad S. Burlew, A. David Goldberg, Stephen Olson, Jerry W. Froelich, and Sidney Goldstein

1131
Hemodynamic Correlates of Left Ventricular Versus Right Ventricular Radionuclide Volumetric Responses to Vasodilator Therapy in Congestive Heart Failure Secondary to Ischemic or Dilated Cardiomyopathy.
Marvin A. Konstam, David S. Weiland, Thomas P. Conlon, Tami T. Martin, Steven R. Cohen, Eric J. Eichhorn, Jeffrey M. Isner, Michael R. Zile, and Deeb N. Salem

1138
Central and Renal Hemodynamic Effects and Hormonal Response to Diltiazem in Severe Congestive Heart Failure.
Daniel L. Kulick, Nancy McIntosh, Vito M. Campese, Willa Hsueh, Shahbudin H. Rahimtoola, Shaul G. Massry, and Uri Elkayam

VALVULAR HEART DISEASE

1144
Echocardiographic and Hemodynamic Correlates of Diastolic Closure of Mitral Valve and Diastolic Opening of Aortic Valve in Severe Aortic Regurgitation.
Theo Meyer, Pinhas Sareli, Wendy A. Pocock, Hadassah Dean, Menashe Epstein, and John Barlow

1149
Usefulness of Echocardiographically Determined Mitral Leaflet Motion for Diagnosis of Mitral Valve Prolapse in 17- and 18-Year-Old Men.
Michael Kriwisky, Paul Froom, Moshe Gross, Joseph Ribak, and Basil S. Lewis

CONGENITAL HEART DISEASE

1152
Usefulness of Electromagnetic Flowmetry in Intraoperative Evaluation of Aortic Regurgitation Associated with Ventricular Septal Defect.
Kenji Kusuhara, Shigehito Miki, Yuichi Ueda, Yutaka Ohkita, Takafumi Tahata, and Masashi Komeda

1156
Cardiac Rhythm in Atrial Isomerism.
Christopher Wren, Fergus J. Macartney, and John E. Deanfield

MISCELLANEOUS TOPICS

1159
Influence of Recipient Atrial Contraction on Left Ventricular Filling Dynamics of the Transplanted Heart Assessed by Doppler Echocardiography.
Hannah A. Valantine, Christopher P. Appleton, Liv K. Hatle, Sharon A. Hunt, Edward B. Stinson, and Richard L. Popp

1164
Cardiac Response to Daily Activities and Exercise in Normal Subjects Assessed by an Ambulatory Ventricular Function Monitor.
Nagara Tamaki, John B. Gill, Richard H. Moore, Tsunehiro Yasuda, Charles A. Boucher, and H. William Strauss

1171
Arteritis in Cardiac Rejection After Transplantation.
Shirley H. Smith, James K. Kirklin, Jack C. Geer, James B. Caulfield, and David C. McGiffin

1174
Quantification of Atrial Contribution to Left Ventricular Filling by Pulsed Doppler Echocardiography and the Effect of Age in Normal and Diseased Hearts.
Lawrence C. Kuo, Miguel A. Quinones, Roxann Rokey, Michele Sartori, Edward G. Abinader, and William A. Zoghbi

1179
Relation of Doppler-Derived Left Ventricular Filling Parameters to Age and Radius/Thickness Ratio in Normal and Pathologic States.
Michele P. Sartori, Miguel A. Quinones, and Lawrence C. Kuo

HISTORICAL STUDIES

1183
From Irritable Heart to Mitral Valve Prolapse: World War I—The U.S. Experience and the Origin of Neurocirculatory Asthenia.
Charles F. Wooley

EDITORIALS

1187
Coronary Thrombosis, Coronary Spasm and Coronary Atherosclerosis and Speculation on the Link Between Unstable Angina and Acute Myocardial Infarction.
Robert L. Feldman

1190
Ambulatory (Holter) Electrocardiography Using Real-Time Analysis.
Harold L. Kennedy and Robert D. Wiens

1195
Rethinking Sensitivity and Specificity.
Mark A. Hlatky, Daniel B. Mark, Frank E. Harrell, Jr., Kerry L. Lee, Robert M. Califf, and David B. Pryor

BRIEF REPORTS

1199
Isosorbide Dinitrate Oral Spray in Acute Exacerbation of Chronic Congestive Heart Failure Secondary to Coronary Artery Disease.
Alan Marmor, Adam Schneeweiss, Moshe Plich, David Blondheim, Tali Sharir, and Joseph S. Alpert

1200
Spontaneous Conversion of Ventricular Fibrillation in Cardiogenic Shock from Acute Myocardial Infarction.
Alberto Interian, Jr., Richard G. Trohman, Agustin Castellanos, Marilyn Cox, Liaqat Zaman, and Robert J. Myerburg

1202
An Echo-Dense Mass in the Pericardial Space as a Sign of Left Ventricular Free Wall Rupture During Acute Myocardial Infarction.
William D. Knopf, J. David Talley, and Douglas A. Murphy

1203
Serial Nuclear Magnetic Resonance Imaging in Acute Myocardial Infarction.
Lee R. Dilworth, Alex M. Aisen, G.B. John Mancini, and Andrew J. Buda

1205
Angiographic Demonstration of Congenital Intercoronary Communication in Normal Adults.
Gerardo Voci, Ravindra B. Patel, Atul D. Trivedi, Piyush V. Patel, Alfred C. Burris, and Samuel R. Ruby

1207
Temporary Physiologic Pacing in Inferior Wall Acute Myocardial Infarction with Right Ventricular Damage.
Murray F. Matangi

1209
Termination of Slower Ventricular Tachycardia Using an Automatic Implantable Cardioverter-Defibrillator Triggered by Chest Wall Stimulation.
James A. Roth, John D. Fisher, Seymour Furman, and Soo G. Kim

1210
The Case for Explantation of the Automatic Implantable Cardioverter-Defibrillator.
Peter R. Kowey, Ted D. Friehling, Roger A. Marinchak, Ruth Ann Kline, Jane L. Stohler, and Louise A. Yeager

1212
Effects of High-Sodium and Low-Sodium Intake on Circulating Atrial Natriuretic Peptides in Salt-Sensitive Patients with Systemic Hypertension.
Masakazu Kohno, Kenichi Yasunari, Kouichi Murakawa, Yoshiharu Kanayama, Toshifumi Matsuura, and Tadanao Takeda

1213
Correlation of Atrial Fibrillation with Presence or Absence of Mitral Anular Calcium in 604 Persons Older Than 60 Years.
Wilbert S. Aronow, Kenneth S. Schwartz, and Mordecai Koenigsberg

1214
Ventricular Tachycardia as a Cause of Sudden Death in Patients with Aortic Valve Disease.
Klaus Von Olshausen, Thomas Witt, Georg Schmidt, and Jürgen Meyer

1216
Junctional Tachycardia in Infants and Children After Open Heart Surgery for Congenital Heart Disease.
James W. Grant, Gerald A. Serwer, Brenda E. Armstrong, H. Newland Oldham, and Page A.W. Anderson

1218
Symptomatic Pulmonary Venous Obstruction in Adolescence After Mustard's Repair of Transposition in Infancy.
Robert M. Campbell, Gordon A. Moreau, Thomas P. Graham, Jr., and Harvey W. Bender

1220
Cyclosporine-Induced Pericardial Effusion After Cardiac Transplantation.
Andrea Hastillo, James A. Thompson, Richard R. Lower, Szabolcs Szentpetery, and Michael L. Hess

1222
Usefulness of Thallium-201 Scintigraphy During Right Ventricular Pacing for Detecting Myocardial Ischemia with Angiographically Normal Coronary Arteries.
Takashi Nozawa, Shigetake Sasayama, Hiroshi Takabatake, Osamu Wada, Ryusuke Futatasuya, Hidetsugu Asanoi, and Masatoshi Fujita

1224
Electrocardiographic Changes in Catastrophic Abdominal Illness Mimicking Acute Myocardial Infarction.
Isaac Thomas, James Mathew, Vijay P. Kumar, Richard Cooper, and Jack Ferlinz

1226
FROM THE EDITOR

1230
LETTERS

INSTRUCTIONS TO AUTHORS

MAY 15, 1987
VOLUME 59 • NUMBER 13

A SYMPOSIUM: BETA BLOCKADE, CARDIOSELECTIVITY AND INTRINSIC SYMPATHOMIMETIC ACTIVITY

MAY 29, 1987
VOLUME 59 • NUMBER 14

A SYMPOSIUM: CORONARY ARTERY DISEASE RISK FACTOR MANAGEMENT AND DOXAZOSIN

JUNE 1, 1987
VOLUME 59 • NUMBER 15

CORONARY ARTERY DISEASE

1231
Assessment of Residual Coronary Arterial Stenosis After Thrombolytic Therapy During Acute Myocardial Infarction.
Lowell F. Satler, Randolph S. Pallas, Oliver B. Bond, Curtis E. Green, David L. Pearle, Gary L. Schaer, Kenneth M. Kent, and Charles E. Rackley

1234
Peak Creatine Kinase as a Measure of Effectiveness of Thrombolytic Therapy in Acute Myocardial Infarction.
Joel M. Gore, Robert Roberts, Steven P. Ball, Alfredo Mantero, Robert J. Goldberg, and James E. Dalen

1239
A Comprehensive Estimation of Acute Myocardial Infarct Size Using Enzymatic, Electrocardiographic and Mechanical Methods.
Peer Grande, Nancy B. Hindman, Kari Saunamäki, John D. Prather, Tomoaki Hinohara, and Galen S. Wagner

1245
Right Ventricular Filling Detected by Pulsed Doppler Echocardiography During the Convalescent Stage of Inferior Wall Acute Myocardial Infarction.
Mitsuaki Isobe, Yoshio Yazaki, Fumimaro Takaku, Kazuhiro Hara, Mitsuo Kashida, Tetsu Yamaguchi, and Kiyoshi Machii

1251
Prognostic Value of Exercise-Induced Ventricular Ectopic Activity for Mortality After Acute Myocardial Infarction.
Rodney L. Henry, Gemma T. Kennedy, and Michael H. Crawford

1256
Significance of Abnormal Blood Pressure Response During Exercise-Induced Myocardial Dysfunction after Recent Acute Myocardial Infarction.
Gianfranco Mazzotta, Giovanni Scopinaro, Marco Falcidieno, Franco Claudiani, Enrico de Caro, Robert O. Bonow, and Carlo Vecchio

1261
Accuracy of Digital Angiography for Quantitation of Normal Coronary Luminal Segments in Excised, Perfused Hearts.
Thomas N. Skelton, Katherine B. Kisslo, Eileen M. Mikat, and Thomas M. Bashore

1266
Color Doppler Assessment of Mitral Regurgitation Induced by Supine Exercise in Patients with Coronary Artery Disease.
Zachariah P. Zachariah, Ming C. Hsiung, Navin C. Nanda, Mee-Nin Kan, and Robert P. Gatewood, Jr.

1271
Relation of Serum Total Cholesterol and High-Density Lipoprotein Cholesterol Percentage to the Incidence of Definite Coronary Events: Twenty-Year Follow-Up of the Donolo-Tel Aviv Prospective Coronary Artery Disease Study.
Daniel Brunner, Joshua Weisbort, Nissim Meshulam, Sara Schwartz, Jaqueline Gross, Hedy Saltz-Rennert, Shmuel Altman, and Kurt Loebl

1277
Relation of Dyspnea to Left Ventricular Wall Motion Disturbances in a Population of 67-Year-Old Men.
Kenneth Caidahl, Kurt Svärdsudd, Henry Eriksson, and Lars Wilhelmsen

1283
Comparison of Bepridil with Nadolol for Angina Pectoris.
Peter W. Pflugfelder, Dennis P. Humen, Pam A. O'Brien, Paul D. Purves, George Jablonsky, and William J. Kostuk

1289
Comparison of the Effects of Pindolol and Propranolol on Exercise Performance in Patients with Angina Pectoris.
Sheldon Magder, Magdi Sami, Ruth Ripley, and Robert Lisbona

1295
Increase in S-Wave Amplitude During Ischemic ST-Segment Depression in Stable Angina Pectoris.
James J. Glazier, Sergio Chierchia, Alberto Margonato, and Attilio Maseri

1300
Aortic Distensibility Abnormalities in Coronary Artery Disease.
Christodoulos Stefanadis, Charles F. Wooley, Charles A. Bush, Albert J. Kolibash, and Harisios Boudoulas

1305
Effects of the Mueller Maneuver on Global and Regional Left Ventricular Function in Angina Pectoris With or Without Previous Myocardial Infarction.
Steven M. Scharf, Barry O'Beirne Woods, Robert Brown, Alfred Parisi, Micheal M. Miller, and Donald E. Tow

1310
Predictive Value of Clinical and Exercise Variables for Detection of Coronary Artery Disease in Men with Diabetes Mellitus.
Shirley Rubler, David Gerber, John Reitano, Vandana Chokshi, and Vincent J. Fisher

ARRHYTHMIAS AND CONDUCTION DISTURBANCES

1314
Prognostic Value of the Changes in the Mode of Ventricular Tachycardia Induction During Therapy with Amiodarone or Amiodarone and a Class 1A Antiarrhythmic Agent.
Soo G. Kim, Samuel D. Felder, Ilona Figura, Debra R. Johnston, Anthony D. Mercando, and John D. Fisher

1319
Efficacy of Class Ib (Lidocaine-Like) Antiarrhythmic Agents for Prevention of Sustained Ventricular Tachycardia Secondary to Coronary Artery Disease.
Michael J. Reiter, Arthur R. Easley, and David E. Mann

1325
Significance of Pacing Cycle Lengths in Manifest Entrainment of Orthodromic Circus Movement Tachycardia by Ventricular Pacing.
Liaqat Zaman, Agustin Castellanos, Nadir C. Saoudi, Wayne J. Stafford, Richard G. Trohman, Alberto Interian, Jr., and Robert J. Myerburg

1332
Efficacy of Oral and Intravenous Indecainide in Ventricular Arrhythmias.
Pasquale F. Nestico, Joel Morganroth, Leonard N. Horowitz, and Colleen Mulhern

1337
Efficacy and Safety of Flecainide Acetate for Atrial Tachycardia or Fibrillation.
Ellison Berns, Robert L. Rinkenberger, Ming K. Jeang, Anne H. Dougherty, Mary Jenkins, and Gerald V. Naccarelli

SYSTEMIC HYPERTENSION

1342
Relation of Blood Pressure During Exercise to Anaerobic Metabolism.
Dale W. Spence, Lysle H. Peterson, and Vincent E. Friedewald, Jr.

CONGESTIVE HEART FAILURE

1345
Comparison of Intravenous Milrinone and Dobutamine for Congestive Heart Failure Secondary to Either Ischemic or Dilated Cardiomyopathy.
Theodore L. Biddle, Joseph R. Benotti, Mark Creager, David P. Faxon, Brian G. Firth, Patricia G. Fitzpatrick, Marvin A. Konstam, Conrad Krebs, Louise Walton, Ronald P. Kershner, Jack Jacobsen, Carol A. Luczkowec, Maria J. Montenaro, P.K. Tandon, Susan Fitzpatrick, and Richard P. Schwarz, Jr.

1351
Effects of Milrinone of Complex Ventricular Arrhythmias in Congestive Heart Failure Secondary to Ischemic or Idiopathic Dilated Cardiomyopathy.
Paul L. Ludmer, Donald S. Baim, Elliott M. Antman, Diane F. Gauthier, Michael B. Rocco, Peter L. Friedman and Wilson S. Colucci

1356
Acute Hemodynamic and Hormonal Effects of CI-930, a New Phosphodiesterase Inhibitor, in Severe Congestive Heart Failure.
Srinivas Murali, Barry F. Uretsky, Anita M. Valdes, Judy A. Kolesar, and P. Sudhakar Reddy

VALVULAR HEART DISEASE

1361
Reproducibility of Rest and Exercise Left Ventricular Ejection Fraction and Volumes in Chronic Aortic Regurgitation.
James W. Cornyn, Barry M. Massie, Barry Greenberg, Debra L. Loge, David Thomas, J. David Bristow, Melvin Cheitlin, and G. Krishnamurthy

1366
Late Diastolic Mitral Regurgitation Studied by Pulsed Doppler Echocardiography.
Jun-Ichi Sanada, Masazumi Kawahira, Hiromichi Kubo, Nobuchika Kuroiwa, Kazuhiko Nakamura, and Shuji Hashimoto

1371
Tricuspid Regurgitation by Doppler Echocardiography After Orthotopic Cardiac Transplantation.
Marc K. Lewen, Robert J. Bryg, Leslie W. Miller, George A. Williams, and Arthur J. Labovitz

CARDIOMYOPATHY

1375
Cardiovascular Reserve in Idiopathic Dilated Cardiomyopathy as Determined by Exercise Response During Cardiac Catheterization.
Ricky D. Latham, John W. Thornton, and John P. Mulrow

CONGENITAL HEART DISEASE

1380
Electrophysiologic Drug Testing in Symptomatic Ventricular Arrhythmias After Repair of Tetralogy of Fallot.
Barbara J. Deal, Daniel Scagliotti, Scott M. Miller, Jose L. Gallastegui, Robert J. Hariman, and Sidney Levitsky

1386
Effects of Activity On Ascending Aortic Velocity In Children with Valvar Aortic Stenosis.
Gerard R. Martin, Scott J. Soifer, Norman H. Silverman, Michael W. Dae, and Paul Stanger

1391
Altered Early Left Ventricular Diastolic Function in the Premature Infant.
R. Scott Appleton, Thomas P. Graham Jr., Robert B. Cotton, Gordon A. Moreau, and Robert J. Boucek, Jr.

MISCELLANEOUS TOPICS

1395
Influence of Left Ventricular Mass on Coronary Artery Cross-Sectional Area.
James H. O'Keefe, Jr, Robert M. Owen, and Alfred A. Bove

1398
Contribution of Afterload, Hypertrophy and Geometry to Left Ventricular Ejection Fraction in Aortic Valve Stenosis, Pure Aortic Regurgitation and Idiopathic Dilated Cardiomyopathy.
Pamela S. Douglas, Nathaniel Reichek, Keith Hackney, Alfred Ioli, and Martin G. St. John Sutton

1405
A Polymorphic Form of Familial Arrhythmogenic Right Ventricular Dysplasia.
Andrea Nava, Roldano Scognamiglio, Gaetano Thiene, Bruno Canciani, Luciano Daliento, Gianfranco Buja, Paolo Stritoni, Giuseppe Fasoli, and Sergio Dalla Volta

METHODS

1410
Differentiation of Ischemic from Nonischemic Cardiomyopathy with Positron Emission Tomography.
Joel D. Eisenberg, Burton E. Sobel, and Edward M. Geltman

EDITORIALS

1415
Should Electrophysiologic Studies Be Performed to Assess Drug Efficacy in Patients Receiving Amiodarone?
Pedro Brugada

BRIEF REPORTS

1417
An Optimal Electrocardiographic Lead System for Post-Cardiac Surgical Monitoring.
Jonathan Gomberg, Patricia Sisk, Grant Van S. Parr, and Richard H. Helfant

1419
Lack of Evidence of Spontaneous Reperfusion When Ventricular Fibrillation Complicates Early Acute Myocardial Infarction.
Campbell Cowan, Martin Been, and Ian Gibb

1421
Transient Cardiac Sinus Dysrhythmia Occurring After Cold Water Immersion.
Thomas J. Doubt, Douglas L. Mayers, and Edward T. Flynn

1422
Usefulness of Intravenous Propafenone for Control of Postoperative Junctional Ectopic Tachycardia.
Arthur Garson, Jr., Jeffrey P. Moak, Richard T. Smith, Jr, and J. B. Norton, Jr.

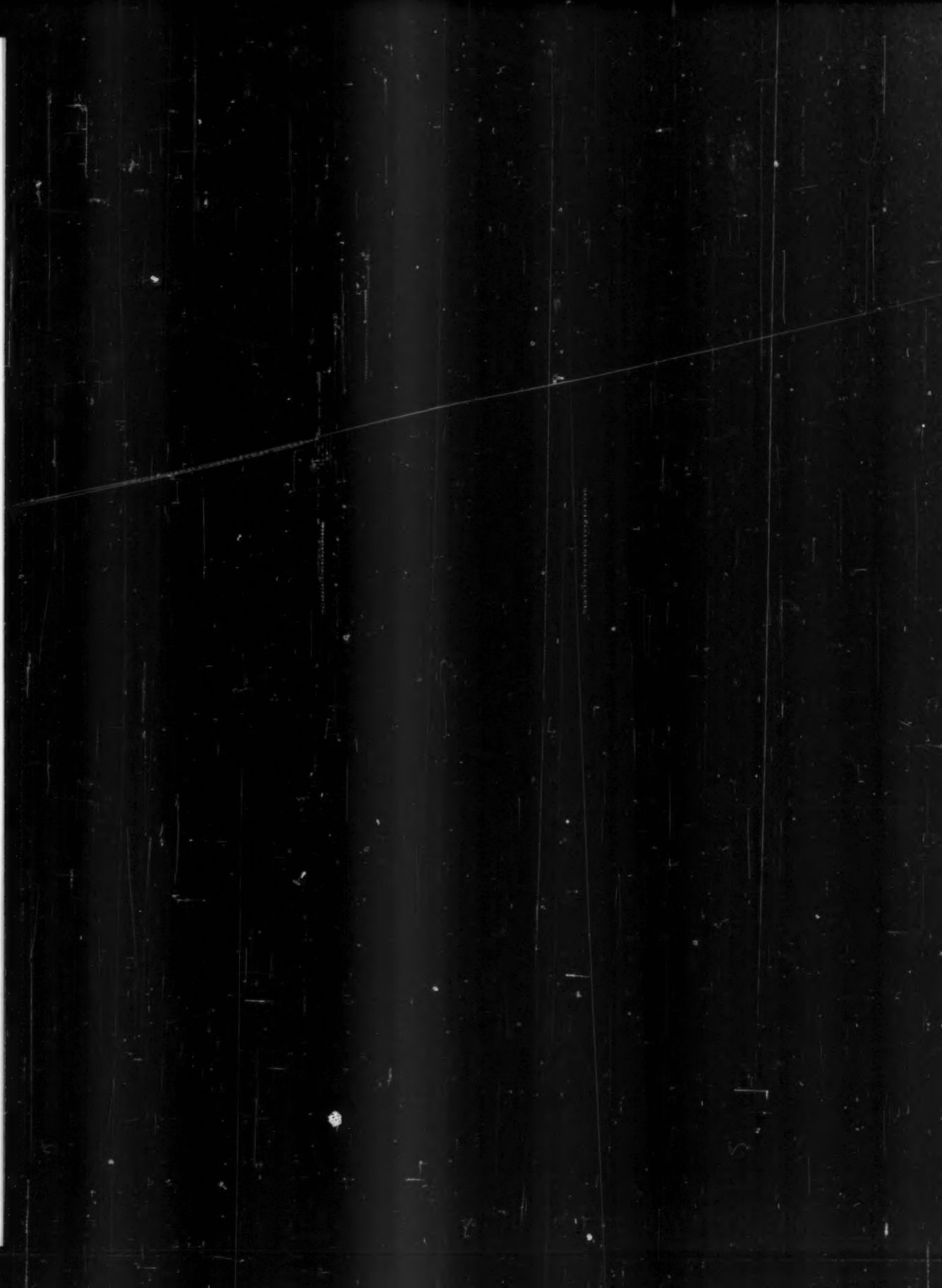
1424
Tachycardia Termination with a Rate-Responsive Pacemaker.
Karel Den Dulk, Pedro Brugada, and Hein J.J. Wellens

1426
Magnetic Resonance Imaging Late After Tricuspid Valvectomy.
Richard M. Slone, James A. Hill, E. William Akins, and C. Richard Conti

1428
Echocardiographic and Electrocardiographic Characteristics of Patients With Hypertrophic Cardiomyopathy With and Without Mitral Anular Calcium.
Chandra K. Nair, Vijay Kudesia, Dale Hansen, Wade Thomson, Tom Pagano, Kay Ryschon, and Michael H. Sketch

1431
Prevalence of Intracardiac Right-to-Left Shunting in Adults Without Obvious Congenital Heart Disease
Elaine H. Niggemann, Kenneth P. Sunnergren, Patrick T.S. Ma, Michael D. Winniford, and L. David Hillis

1434
FROM THE EDITOR

INSTRUCTIONS TO AUTHORS
on page 1433

VOLUME INDEXES
on page 1437